Tool Kit #1 - COTS Risk Mitigation Strategy Questionnaire

POC: Gordon Shaffer
(202) 366-6429
gordon.shaffer@faa.gov
21 June, 2002

COTS RISK MITIGATION STRATEGY IMPLEMENTATION CHECKLIST

Risk Mitigation Strategy Implementation Questions	Yes	No	Don't Know	Action
1. Involve COTS-knowledgeable individuals in all analytical processes. (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5.1.)				
a. Do key team members have COTS-based system acquisition and support experience or training (i.e. project lead, contracting officer, lead system engineer, COTR, cost estimator, logistician)?				
b. If applicable, has COTS risk mitigation training for team members without COTS experience been planned?				
c. Have the risk mitigation strategies been scheduled for all program phases and incorporated into the risk management plan? (Refer to FAA System Engineering Manual section 4.10 Risk Management)?				
d. Have the resources for implementing the risk mitigation strategies been identified in the program work breakdown structure (WBS)?				

e. Does the team membership need to be supplemented with COTS-knowledgeable individuals? If the answer is yes:
    (1) Can consultants or new personnel be hired?
    (2) Can temporary assignments for subject matter experts be offered?
    (3) Can inter / intra-organizational transfers be arranged?				

f. Is this strategy phased to begin during Mission Analysis and continue throughout the life cycle of the program?				
2. Involve users early and throughout the program life cycle to identify and resolve COTS-related constraints. (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5.2.)				
a. Have memoranda of understanding (MOUs) been developed between the program office and the stakeholder unions?				
b. Have MOUs been agreed to and signed?				

Risk Mitigation Strategy Implementation Questions (cont'd)	Yes	No	Don't Know	Action
c. Has the AMS guidance for union involvement (reference AMS FAST TOOLSETS/Union Guidance) been followed to obtain the appropriate union representation?				
d. Does the MOU clearly define the organizational and individual roles and responsibilities with respect to rotation, responsibility, accountability, authority, continuity, level of participation etc.?				
e. Does the WBS and budget have funding programmed to pay for the union representatives?				
f. Is this strategy phased to begin during Mission Analysis and continue throughout the life cycle of the program?				
3. Perform continuous COTS product market research. (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5 3.)				
a. Has current technology been assessed for being able to meet requirements using the methods identified in the guide?				
b. Have market surveillance and investigation activities been identified in the program Work Breakdown Structure (WBS) and budget?				
c. Have contract requirements been planned for and/or established to have the systems integrator perform COTS risk mitigation activities including ongoing market investigation activities and delivery of applicable information? (Refer to Attachment 1 for sample contract requirements.)				
d. Is the obsolescence risk analysis process sufficiently understood by team members to be able to assess the market investigation information, identify the system impact of product obsolescence risk triggers, determine the obsolescence risks and mitigation options, provide budget defense rationale and develop a system obsolescence profile? (Refer to Appendix D in the guide.)				
e. Is this strategy phased to begin during Mission Analysis and continue throughout the life cycle of the program?				
4. Integrate market research results with field data and new requirements. (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5.4.)				
a. Have all potential changes to the system been identified?				

Risk Mitigation Strategy Implementation Questions (cont'd)	Yes	No	Don't Know	Action
b. Has field data e.g., RM&A information, supportability issues, proposed improvements, new requirements etc. been collected?				
c. Are upgrades or pre-planned product improvements (P^{3}I) included as part of the program baseline?				
d. Has all of the above information been categorized, prioritized and analyzed for technical and schedule relationships as illustrated in Figure D-6 (paragraph D.4) of the guide?				
e. Is this strategy phased to begin during Mission Analysis and continue throughout the life cycle of the program?				
5. Develop and maintain flexible performance requirements suited to the use of COTS. (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5.5.)				
a. Have the requirements been validated as stating functional needs (i.e., the what and not the how)?				
b. Have the FAA System Engineering Manual sections 4.3 (Requirements Management) and 4.12 (Validation and Verification) been used to establish the requirements management process for the life cycle of the system?				
c. Have the requirements included COTS technical performance factors as identified in Appendix E of the guide?				
d. Have the requirements been categorized into "must have" and "nice to have" categories?				
e. Where possible, have requirements been stated with a range of acceptable performance values?				
f. Has the maintenance concept been agreed to by all stakeholders and specified as part of the requirements?				
g. If the maintenance concept is not suited to COTS product usage, has the cost of uniquely supporting the products been budgeted?				
h. Is this strategy phased to begin during Investment Analysis and continue throughout the life cycle of the program?				
6. Institute and maintain ongoing COTS product testing capability. (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5.6.)				

Risk Mitigation Strategy Implementation Questions (cont'd)	Yes	No	Don't Know	Action
a. Have test facilities been budgeted and/or established to allow for beta testing, prototyping or early concept demonstrations of COTS products?				
b. Has the testing organization identified/documented different levels of testing for different types of COTS products (i.e., a server versus a disk drive)?				
c. Are the test facilities (planned or existing) sufficiently robust to allow for continuous COTS product compatibility testing?				
d. Are the test facilities capable of supporting multiple product/system configurations?				
e. Are test facilities planned (or in place) for developmental purposes?				
f. Is this strategy phased to begin during Investment Analysis and continue throughout the life cycle of the program?				
7. Develop and maintain non-technical COTS selection factors. (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5.7.)				
a. Have COTS non-technical selection factors been developed using the guidance contained in Appendix F of the guide?				
b. Have these factors been weighted as to their importance?				
c. Have these criteria been identified in the system contract?				
d. Does the system integrator have a tool to be able to use these criteria to objectively select among functionally similar COTS products?				
e. Is this strategy phased to begin during Investment Analysis and continue throughout the life cycle of the program?				
8. Use COTS-sensitive analytical and budget processes. (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5.8.)				
a. Has the risk analysis process taken COTS risks into account? (Refer to FAA COTS Risk Management Guide paragraph 1.3)				
b. Does the life cycle / cost-estimating model or tool account for COTS product / system technology refresh cycles?				
c. Has a strategy for managing continuous system evolution and obsolescence-induced changes been incorporated within the Integrated Program Plan?				
d. Is the operations budget synchronized with the F&E funded system changes?				

Risk Mitigation Strategy Implementation Questions (cont'd)	Yes	No	Don't Know	Action
e. Do cost-benefit analyses for selecting COTS products reflect non-technical selection factors as identified in Appendix F of the guide?				
f. Have the Economic Service Life values from the AMS been considered for use to estimate product longevity cycles? (Refer to AMS FAST Toolsets/Investment Analysis/Special Topics/Economic Service Life.)				
g. Is obsolescence risk analysis part of the program WBS, budget and support strategy?				
h. Is this strategy phased to begin during Investment Analysis and continue throughout the life cycle of the program?				
9. Integrate COTS-based technology evolution planning information within the Integrated Program Plan (IPP). (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5.9.)				
a. Does the program have an Integrated Program Plan (IPP)?				
b. Is it being used as a "living" document to capture COTS support strategy, program decisions and system evolution/technology refresh planning?				
c. Is there another document that can be used to integrate technology evolution planning information?				
d. Does program management need to understand the benefits (i.e., decision repository, program continuity etc.) of establishing and maintaining an Integrated Program Plan or equivalent?				
e. Is this strategy phased to begin during Investment Analysis and continue throughout the life cycle of the program?				
10. Emphasize strong and COTS-relevant configuration management practices. (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5.10.)				
a. Is there management commitment to a strong CM program?				
b. Is there an experienced and COTS-knowledgeable CM group in place?				
c. Is the CM group tightly coupled with the system engineering process?				
d. Do the test and 2nd level engineering organizations have strong CM support?				
e. Is the program's CM program robust enough to manage multiple configurations at the product and system level?				

Risk Mitigation Strategy Implementation Questions (cont'd)	Yes	No	Don't Know	Action
f. Is this strategy phased to begin during Investment Analysis and continue throughout the life cycle of the program?				
11. Use a COTS-experienced systems integration agent. (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5.11.)				
a. Does the planning for source selection include screening factors for selecting a COTS-experienced integration agent? (Refer to Attachment 2 for sample screening questions.)				
b. Does the contract contain COTS-specific statement of work (SOW) , data item descriptions (DIDs) and contract deliverable requirements lists (CDRLs)? (Refer to XXX for sample requirements.)				
c. Is this strategy phased to begin during Investment Analysis and continue throughout the life cycle of the program?				
12. Leverage the commercial infrastructure wherever feasible. (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5.12.)				
a. Has the program maximized it's opportunities to leverage the commercial infrastructure using the activities identified in the guide?				
b. Is this strategy phased to begin during Mission Analysis and continue throughout the life cycle of the program?				
13. Avoid modification of COTS when possible. (Refer to FAA COTS Risk Mitigation Guide paragraph 1.5.13.)				
a. Has the source selection criteria included preferences for the non-modification of COTS products?				
b. Is the modification of COTS products an exception in the acquisition strategy and in the contract?				
c. If COTS products must be modified, have the life cycle support costs been identified and budgeted?				
d. Is this strategy phased to begin during Investment Analysis and continue throughout the life cycle of the program?				

This page intentionally left blank

Attachment 1: Sample Contract Requirements

1. Insert references to the FAA System Engineering Manual and the FAA COTS Risk Mitigation Guide in the statement of work.

Other FAA Publications

ASD-100-SSE-1 Rev. 4.0	NAS Modernization System Safety Management Program (SSMP)
DOT/FAA/CT-96/1	Human Factors Design Guide (HFDG) for Commercial-Off-the-Shelf Subsystems, Non-Developmental Items, and Developmental Systems
	DOT/FAA/CT-TN00/30, *Computer-Human Interface Guidelines* (A Revision to Chapter 8 of the Human Factors Design Guide)
	Acquisition Management System Test & Evaluation Process Guidelines
	FAA Information System Security Program Handbook, Version 2
	FAA System Safety Handbook: Practices and Guidelines for Conducting System Safety Engineering and Management
	FAA System Engineering Manual FAA Commercial Off-the-Shelf (COTS) Risk Mitigation Guide: Practical Methods for Effective COTS Acquisition and Life Cycle Support http://www.faa.gov/aua/resources/cots

2. Ensure program reviews in the SOW have an agenda item that discusses commercial product obsolescence and supportability issues.

Program Management Reviews (PMR)

The Contractor shall conduct and administratively support monthly PMRs to review the work effort being conducted. The Contractor shall prepare and submit an agenda and minutes along with any action items assigned. For all PMRs, the Contracting Officer may modify the meeting schedule to accommodate special program needs. The monthly PMR will include a status of Contractor development activities and a summary of findings and resolutions for technical reviews and meetings (see Section XXXX) conducted during the PMR reporting period.

The Contractor shall use PMRs to provide insight into engineering activities, integration activities, program planning, overall management, and progress for Government and Government representative(s) in attendance. Topics to be addressed at the PMRs include, but are not limited to:

a. Detailed technical status of the contract, to include completed and upcoming milestones. Emphasis shall be placed on issues needing resolution, or anticipated differences between contract milestones, schedules or technical performance parameters;

b. Cost, schedule, and performance status including identification of major drivers behind cost or schedule variances and the action plans to resolve these variances;

c. Major accomplishments since the last PMR;

d. Expected major accomplishments prior to the next PMR;

e. Network Logic Schedule critical path status and preview of next critical path activity (see Section XXXX);

f. Definition and implementation of contingency or workaround plans;

g. Program risks and status of risk mitigation and alleviation measures;

h. Development/production status of non-COTS products;

i. Procurement/integration status of COTS products;

j. Test status including the status of open Program Trouble Reports (PTRs);

k. (1) Status of action items, (2) Status of Government and Contractor deliverables to be delivered within the following three months and the status of receipt of CDRL reviews from the Government, (3) Engineering Change Proposals (ECPs), and (4) all Government Furnished Property (GFP)/Government Furnished Information (GFI)/ Government Furnished Material (GFM)/Government Furnished Equipment (GFE);

l. Planned versus actual staffing by functional discipline;

m. Implementation and site activation/deployment status;

n. Status of software development including software program management indicators (as a minimum, the metrics identified in Section XXXX);

o. Commercial product obsolescence and supportability issues and recommended actions;

p. Review of contract management actions since the last PMR, future required actions, and funding status; and

q. Notify the Government of any deviations from the requirements and provide justifications.

CDRL XXX   Agenda, Meeting Minutes, Action Item List, and Presentation Materials

3. Ensure that SOW language for a management plan covering all commercial items in the system is placed in the systems engineering portion of the statement of work. CDRL and DID samples are included.

Commercial Product Management

The Contractor shall establish and execute a Commercial Product Management (CPM) Program in accordance with the Commercial Product Management Plan (CPMP). The CPMP shall describe how the Contractor will manage the hardware, firmware, and software commercial products (including GFE and NDI commercial products) used in the system during the development, deployment and post-development phases. The CPMP shall document the CPM organization, processes, and procedures to be implemented, and will include processes/procedures for COTS/NDI selection, market research, compliance/compatibility testing, obsolescence management strategy, life-cycle cost modeling tools used and trade-offs made for initial and subsequent COTS product selection, description of monthly obsolescence working group meetings, and the associated tools to manage the above processes.

Criteria used for selection of commercial products shall include both technical and non-technical considerations. Technical criteria shall consider both performance requirements and supportability characteristics and the plan shall identify alternatives on how the Contractor will deliver a system without obsolescence-induced supportability issues. Non-technical criteria shall include considerations such as product maturity, market share, manufacturer flexibility/stability, etc., all of which need to be weighted as to their relative importance to and influence on performance requirements.

As part of the obsolescence management effort, the CPMP shall include a commercial product supportability risk analysis, identifying any potential risk areas and their associated mitigation plans. The CPMP shall include supportability strategy alternatives, and the associated supportability extension costs (rough order of magnitude). Yearly and monthly estimates of supportability extension labor and purchase costs for each functional organization shall be separately identified. Cost, schedule, and technical assumptions shall be documented. The Contractor shall use the CPMP market research information as a basis for proposing post-deployment contractor depot logistic support sparing quantities.

CDRL XXX   Commercial Product Management Plan (CPMP)

DATA ITEM DESCRIPTION

1. TITLE **Commercial Product Management Plan (CPMP)**	2. IDENTIFICATION NUMBER

3. DESCRIPTION/PURPOSE

The plan shall describe a process for managing commercial products.

The plan shall identify EOL/EOS information and issues for the system.

4. APPROVAL DATE (YYMMDD)	OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6a. GIDEP APPLICABLE

7. APPLICATION/INTERRELATIONSHIP

The plan shall document the work resulting from SOW paragraph XXXX

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER

10. PREPARATION INSTRUCTIONS

10.1 FORMAT: Contractor format is acceptable.

10.2 CONTENT: At a minimum, the CPMP shall consist of a Plan and an Appendix A, Data/Analysis.

1. Plan. The Plan shall describe how the Contractor will manage commercial hardware, software and firmware products (including GFE and NDI commercial products) used during the development, deployment and post-development of the system, including the following, as a minimum:

    a. Document the commercial product management organization, processes, and procedures to be implemented in support of the XXXX program;

    b. Document the criteria for initial and subsequent COTS product selection (performance and non-technical) and any associated tools – the non-technical selection criteria identified in Appendix F of the FAA COTS Risk Mitigation Guide may be used as guidance;

    c. Describe the market research process to support the development of Appendix A;

    d. Describe the test resources and methodologies to be used for COTS product compliance and compatibility testing;

    e. Describe the tools used for COTS product life cycle planning and life cycle cost estimation;

    f. Describe the process to be used to accomplish vendor surveys to establish and track COTS product equipment end of life and end of service dates;

    g. Describe the process that will be used to identify system products needing substitution or replacement with a new product due to performance or supportability/obsolescence limitations; and

    h. Describe the process that will be used to notify the FAA of planned equipment substitutions or replacements.

    i. Describe the analysis process by which the Contractor shall use the product information to formulate alternative support strategies and recommendations.

    j. Describe the process by which the Contractor shall identify and address supportability risk. Supportability risk includes: performance related risks, schedule-related risks, cost related risks, and product-related risks associated with obsolescence, technology shifts, market availability, and selection criteria.

    k. Describe the process the Contractor shall use to mitigate risk associated with commercial product supportability. This includes the process for generating and evaluating alternatives, Contractor actions taken, and recommendations to the FAA for mitigating actions.

(continued)

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

10. PREPARATION INSTRUCTIONS (continued)

    2. Appendix A, Supportability/Analysis.

Appendix A to the plan shall use a commercially available spreadsheet format to identify all replaceable commercial products used in the system along with the following at a minimum, for each product:

        a.   Part number
        b.   Part name
        c.   Description of the product's use
        d.   Quantities per system
        e.   Original equipment manufacturer/supplier
        f.   Other product and system dependencies
        g.   Actual and projected End-of-Life (EOL) and End-of-Service (EOS) dates
        h.   Alternate form, fit, function (F3) compatible product sources
        i.   Vendor
        j.   Hardware failure rates (predicted and/or actual)
        k.   Operational impact of failure
        l.   Failure workaround description
        m. Recommended mitigation action and required lead time
        n.   When the FAA should accomplish the recommended action
        o.   Risk assessment
        p.   Depot spares quantities (post deployment)
        q.   Notes.

This page intentionally left blank

CONTRACT DATA REQUIREMENTS LIST

Form Approved
OMB No. 0704-0188

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY
	B	OTHER

D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR
En Route Automation Modernization (ERAM)	DTFA01-XX-C-XXXXX	

1 DATA ITEM NO.	2 TITLE OF DATA ITEM	6 REQUIRING OFFICE	10 FREQUENCY	12 DATE OF FIRST SUBMISSION	14 DISTRIBUTION
B012	COMMERCIAL PRODUCT MANAGEMENT PLAN (CPMP) 3 SUBTITLE	AUA-200	SEMIA	SEE REMARKS	**DRAFT FINAL** **HARD/SOFT HARD/SOFT** AUA TAC DMO 0/1 0/1 ASU-350 SEE REMARKS CEXEC SEE REMARKS

4 AUTHORITY (DATA ACQUISITION DOCUMENT NO.)	5 CONTRACT REFERENCE	7 DD 250 REQ	8 APP CODE	9 DIST STATEMENT REQUIRED	11 AS OF DATE	13 DATE OF SUBSEQUENT SUBMISSION
ERAM-012	C.3.2.4.2; C.3.2.6.4	LT	A SEE REMARKS			SEE REMARKS

16 REMARKS

BLOCK 8:   30 DAR of each delivery.

BLOCK 12: Draft NLT 60 DACA. (Plan portion of CPMP, no Appendix).

BLOCK 13: Final including Appendix A due 7 months after Hardware Design TIM #2 presentation. Update submission required semi-annually based on date of final delivery through the life of the contract.

BLOCK 14: ASU-350 and CEXEC transmittal letter only.

15 TOTAL 0/1   0/1

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE

This page intentionally left blank

4. Establish a forum in the SOW to communicate emerging COTS product obsolescence and supportability issues and link to program management reviews and risk management activities.

Obsolescence Working Group Meetings

The Contractor shall conduct monthly obsolescence working group meetings beginning after the first delivery of the CPMP Appendix A. The Contractor shall identify and track existing and emerging COTS product obsolescence situations and determine if they require action and propose risk mitigation measures if needed. The Contractor shall record and track the issues until resolved. The Contractor may incorporate these meetings with other meetings (e.g., hardware TIMs) if practical. Meeting outputs will provide risk inputs to the risk management process and shall be statused at the monthly PMR meetings.

CDRL XXX   Agenda, Meeting Minutes, Action Item List, and Presentation Materials

5. Ensure the system integrator supports early user involvement activities.

Early User Involvement

The Contractor shall support Air Traffic (AT) and AF Early User Involvement (EUI) activities. The Contractor and the Government shall jointly conduct EUI activities. The Contractor shall support the EUIs by providing technical system design and program information as appropriate, by developing objectives for the evaluations and collecting and analyzing data from the evaluations.

6. Insert SOW language that reinforces open systems architecture and government approval for any exceptions.

Use and Integration of COTS/NDI Software

The design documentation shall identify all cases where a COTS/NDI product is used as an integral part of the software architecture, either as a CSCI or within a CSCI. The design documentation shall maintain traceability between COTS/NDI usage and the requirements. When using commercial elements, including operating systems and compilers, the Contractor shall ensure openness of the design and implementation by using, to the maximum extent possible, only those features or attributes that comply with industry-approved standards. The design documentation shall describe any planned exceptions to the application of these standards in the design or implementation of the system. The Contractor shall obtain Government approval with these exceptions before initiating detailed software design and implementation.

7. Insert SOW language to minimize system configuration differences and to identify the modification of COTS as an exception.

Hardware Design

The Contractor shall develop a detailed design of the hardware and provide requirements traceability to the entire Government System Specification. This design and development shall be in accordance with, and meet the requirements of, the entire Government System Specification. The Contractor shall make maximum use of readily available COTS/NDI hardware systems that satisfy the functional and performance requirements of the entire Government System Specification. Hardware systems, assemblies, or components that meet the requirements of the entire Government System Specification shall be procured according to applicable FAA regulations and orders. COTS/NDI hardware shall remain consistent across all sites (same manufacturer, type, and hardware family) and upon completion of any hardware upgrade of system equipment/design. During the engineering design process the Contractor may propose a new configuration item, developmental Lowest Replaceable Unit (LRU), or modified COTS/NDI if it is justified as best value on a cost/benefit basis. The Contractor shall document the inter-relationships between the system/subsystem/equipment drawings in the Engineering Drawing Tree.

CDRL XXX   Engineering Drawing Tree

8. Ensure that the Commercial Product Management Plan is included as part of the preliminary design review (PDR).

The Contractor shall complete the System/Software PDR for each CSCI, including disposition of all action items, prior to starting implementation for that CSCI, unless the Government has provided explicit approval in advance.
Upon completion of the System/Software PDR presentation, the Contractor shall make no changes to the requirements baseline without Government approval.

CDRL XXX   Agenda, Meeting Minutes, Action Item List, and Presentation Materials

CDRL XXX   System/Segment Specification (SSS), Volume I

CDRL XXX   Interface Requirements Document (IRD)

CDRL XXX   Software Requirements Specification (SRS)

CDRL XXX   Interface Control Document (ICD)

CDRL XXX   Human Engineering System Analysis Report (HESAR)

CDRL XXX   Commercial Product Management Plan (CPMP)

CDRL XXX   Human Engineering Program Plan (HEPP)

CDRL XXX   System Safety Program Plan (SSPP)

CDRL XXX   Product Specification (PS)

CDRL XXX   Performance Document (PD)

CDRL XXX   Integrated Support Plan (ISP)

CDRL XXX Software Test Plan

9. Ensure that substitute products are tested for form, fit and function (F³) compatibility before introduction into the system.

Commercial Item Substitution

The Contractor may substitute equivalent commercial items when supplying the system. The form, fit, and function of the replacement for the original item must meet the following minimum requirements:

    a.   Functionality is the same or better than the original item, and

    b.   Form, fit, and function is transparent to the system architecture.

The Contractor shall provide test results to the Government illustrating that the proposed form, fit, and function replacement of a given unit assembly shall perform within the system performance requirements. The Government will accept or reject assembly replacements within 60 working days of notification. No Contractor sponsored changes or modifications shall be made to the system without the consent of the Government.

CDRL XXX   Commercial Item Substitution Notification

Attachment 2: Sample Source Selection Screening Questions

1. What is the offeror's overall experience and success for delivering COTS-based systems?

2. What has been the complexity of the systems delivered by the offeror?

3. What is the offeror's market research capability?

4. Does the offeror have any bias towards particular COTS product lines?

5. How effective are the offeror's manufacturer relationships and vendor network?

6. How much COTS experience does the management and staff have?

7. Does the offeror have a life cycle cost and support orientation?

8. Does the offeror have a preference for modifying COTS products?

9. Does the offeror have a process for selecting COTS products for other than performance factors? Tool(s) to support this process?

10. Does the offeror have documented obsolescence management processes? Tools(s) to support this process?